ABSTRACT OF THE DISCLOSURE

An electrical connector box is provided which includes a case containing inner compartments. A side opening communicating with the inner compartments is provided on a side of the case. A power distribution unit is inserted into and covers the side opening of the case in a vertical orientation. A side frame is connected to a perimeter of the power distribution unit and to the case for mounting the power distribution unit onto the case. The vertical orientation of the power distribution unit requires less horizontal space for the electrical connector box in a vehicle.